

**IN THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF VIRGINIA
DANVILLE DIVISION**

ELDRIDGE ROOSEVELT MEEKS, III,
Plaintiff

v.

THE CITY OF DANVILLE, *et al*,
Defendants.

)
)
)
)
)
)
)

CASE NO. 4:20-cv-00029

**PLAINTIFF’S MEMORANDUM IN SUPPORT OF HIS MOTION EXCLUDE
CERTAIN TESTIMONY OF BRYAN CHILES CENTER**

COMES NOW the Plaintiff, Eldridge Roosevelt Meeks, III (“Mr. Meeks”), by counsel, to tender this Memorandum in Support of the accompanying Motion to Exclude the Testimony of Bryan Chiles to-wit

SUMMARY

This case centers around the injuries that Mr. Meeks sustained after being electrocuted with a Taser. Bryan Chiles is employed by Axon Enterprise, Inc. (formerly Taser International, Inc.) in Scottsdale, Arizona and has been retained by the defendants as an expert to testify regarding the circumstances of the deployment of the Taser that was deployed by defendant Jacob Amos during the apprehension of Mr. Meeks. Based upon his report¹, it is expected that Mr. Chiles will be expected to testify regarding his opinions or conclusions in three subject areas:

1. That the data obtained from Amos’ Taser supports the conclusion that Mr. Meeks was not electrocuted by the device.

¹ A copy of the report (with attachment, including CV) is attached hereto and incorporated herein as EXHIBIT A for the sole purpose of supporting the accompanying motion.

2. That the audio recording taken from the Officer Amos' body-worn camera supports his opinion that Mr. Meeks was not electrocuted by the device.
3. That the data Mr. Chiles obtained during a re-creation of a missed shot in a "laboratory" in the offices of Axon International, Inc. supports the conclusion that Mr. Meeks was not electrocuted by the device.

The Plaintiff issued and served a subpoena duces tecum upon Axon Enterprise, Inc. and, although Axon did not respond completely, the data that it did provide undermines Mr. Chiles' conclusions with regard to these subject areas.

Mr. Chiles has an Associates Degree and has worked as an electronics technician on Tasers for years. Mr. Meeks does not challenge Mr. Chiles qualifications as an expert in the inner workings and electronics of Taser devices, but instead objects to his testimony with regard to his above-referenced conclusions on the grounds that they are not based on scientifically valid reasoning as applied to the facts of this case. As an expert engineer testifying regarding electronics, the admission of Mr. Chiles' testimony is subject to analysis under *Daubert v. Merrell Dow Pharmaceuticals Inc.*, 509 U.S. 579 (1993) and *Kumho Tire Co. v. Carmichael* 526 U.S. 137 (1999). In each of these three subject areas, the *Daubert* standard is not met.

I. THE DATA DOWNLOADED FROM THE TASER²

Tasers can be used in two different modes. "Dart mode" or "probe mode" is used to subdue subjects by Neuromuscular Incapacitation ("NMI"). NMI occurs when electricity causes certain muscles to involuntarily contract, thereby incapacitating a subject. In dart mode, two

² The term Taser applies to a series of weapons manufactured by Axon Enterprise, Inc. and has been adopted colloquially to apply to all manner of electrically conducted weapons. For the purpose of this motion, the word "Taser" (unless otherwise indicated) is used to mean the Taser X26P weapon that was deployed by Jacob Amos

barbed darts are expelled from the Taser when the trigger is pulled and carry conductive wires behind them. If the darts hit a subject, high voltage electrical pulses travel from the Taser, through one of the wires and its dart, through the body of the subject, and back to the Taser through the other dart and wire, thereby completing an electrical circuit. If one or both the darts are close enough to the subject's body, without actually touching the subject, the electricity can "arc" through clothing and even the air, thereby completing the circuit. If either or both of the darts entirely miss the subject and are not close enough to complete the circuit by arcing, then the circuit is not completed and no NMI occurs. The second mode is called "drive stun." During a drive stun, the cartridge carrying the Taser's darts is removed, thereby exposing the electrodes on the front of the body of the Taser. Electricity arcs in between these electrodes when the trigger is pulled and the officer drives the electrodes directly into the body of a subject. Drive stuns do not cause NMI; they instead only cause pain and are used not to incapacitate a subject, but instead to coerce compliance. In this case, Officer Amos deployed his Taser in dart mode.

A typical deployment of a Taser in dart mode lasts five seconds, and this is how long the deployment in this case lasted. Every deployment of a Taser consists of a series of electrical pulses that are delivered by the Taser across its discharge electrodes. The pulses vary in duration, voltage and current based on various conditions and controls. Data from each pulse, including the amount of charge and voltage, are recorded internally inside the Taser and can be downloaded to a computer from the device. Axon Enterprises, Inc. provides software that can graph and display this and other data from the Taser. Pertinent to this motion are graphs called "Pulse Log Graphs." It is possible to use the Axon software to generate a unique pulse log graph for each deployment. The data from the Taser deployed by Jacob Amos against Mr. Meeks was

downloaded and a pulse graph of the deployment was generated and is included in Mr. Chiles' report.

Mr. Chiles' report regarding the interpretation of this pulse log graph is self-contradictory. On page 9 of his report, which deals with the general use of pulse log graphs, he states that "Pulse Logs alone do not indicate whether an activation was effective or not" and that the pulse logs cannot indicate with "certainty that whether a discharge was through probes of the cartridge or directly to the load in a drive- (contact or touch) stun method." In his discussion of the pulse log graph of the data taken from the Taser used against Mr. Meeks, Mr. Chiles writes on page 14 of his report that the Taser was discharged in a manner consistent with "discharging into tissue" during the first second of the five second deployment. In his discussion of the pulse logs rendered from data taken from the Taser, Mr. Chiles makes no finding, reaches no conclusion and offers no opinion that the pulse log graph of the data supports any conclusion that the Taser did not discharge into Mr. Meeks.

Notwithstanding all of the above, in discussing the audio recording of the deployment later in his report, Mr. Chiles writes that the audio recording is "[c]onsistent with the pulse graph showing that there was not an electrical connection to Mr. Meeks..." This conclusion finds no support anywhere in his report and, as noted above, is directly contradicted by his observation that the data is consistent with a discharge into tissue.

These inherent contradictions in his report alone render Mr. Chiles' testimony on the subject of the interpretation of the Taser data unreliable, as does his admission that the data was consistent with a discharge into tissue. An analysis of the *Daubert* factors confirms this unreliability. Addressing these factors in order:

1. WHETHER THE THEORY OF TECHNIQUE IN QUESTION CAN AND HAS BEEN TESTED.

The only information provided in Mr. Chiles' report is that pulse log graphs cannot be used to assess whether or not NMI occurred or even whether or not a Taser deployed into flesh or water. There is absolutely no information given regarding the testing of any theory that supports his conclusion that the pulse log graphs show that Mr. Meeks was not exposed to electricity by the Taser.

2. WHETHER IT HAS BEEN SUBJECTED TO PEER REVIEW AND PUBLICATION

As above, Mr. Chiles report is self-contradictory and contains no reference to any peer-reviewed publications to support his conclusion.

3. ITS KNOWN ERROR OR POTENTIAL RATE

The only discussion of error in Mr. Chiles report regarding the interpretation of pulse log graphs are the statements that they cannot be used to reach the conclusion he reached; namely whether or not a particular Taser deployment was effective or not. The report includes no mention of errors associated with measurement of the data by the Taser or errors associated with the analysis of the data.

4. THE EXISTENCE OR MAINTENANCE OF STANDARDS

The report is silent with regard to standards or controls

5. WHETHER IT HAS ATTRACTED WIDESPREAD ACCEPTANCE WITHIN A RELEVANT SCIENTIFIC COMMUNITY

Again, the report is devoid of any scientific support whatsoever and Mr. Chiles reaches a conclusion that is directly prohibited by the limitations he provided.

For all these reasons, the Plaintiff moves this Court to prohibit Mr. Chiles from testifying that the data downloaded from the Taser deployed against Mr. Meeks supports the conclusion that Mr. Meeks was not electrocuted by the Taser.

II. THE AUDIO RECORDING OF THE DEPLOYMENT

Mr. Chiles characterizes the audio recording taken from Officer Amos' body-worn camera as the "best evidence to analyze on [sic] whether there was an electrical connection to Mr. Meeks or not."

Mr. Chiles used free software called "Sonic Visualizer version 4.2" to assess the audio taken from the body worn camera worn by Jacob Amos when the Taser was deployed by Mr. Meeks. Mr. Chiles concludes that the sound of the Taser deployment supports his opinion that Mr. Meeks was not electrocuted by the Taser.

As confirmed in the associated video recording, the Taser was deployed while both Mr. Meeks and Jacob Amos were running. Furthermore, the deployment of the Taser continued as Officer Amos ran past Mr. Meeks after Mr. Meeks fell to the ground. Like the video, the audio is of poor and highly variable quality.

The essence of Mr. Chiles' is that the "clacking" sound purportedly heard during the first second of the deployment of the Taser is consistent with "arcing in open air." However, Mr. Chiles does not explain how "arcing in open air" supports his conclusion that Mr. Meeks was not electrocuted. The most likely reason that Mr. Chiles cannot make this link is because he is a co-author of a paper entitled "*Electrical Weapon Charge Delivery with Arcing*" that is devoted to explaining how the X26P Taser in particular (and other models of Tasers, as well) can cause NMI

and can successfully deliver their charges through the bodies of their subjects while arcing in open air. A copy of this paper is attached hereto and incorporated herein as EXHIBIT B. In fact, Mr. Chiles specifically concluded that of all the Taser models tested, the X26P had the capability to maintain an open air arc across the furthest distance while still delivering its charge.

Mr. Chiles cites to a single Technical Report authored by Mark Kroll, a Director of Axon Enterprise, Inc., that was not peer-reviewed, to address the noises made during Taser deployments. Furthermore, the free software Mr. Chiles used is licensed³ under the following terms pursuant to the GNU General Public License, version 2:

BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND **FITNESS FOR A PARTICULAR PURPOSE**. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. (emphasis added_

Given (i) the lack of support for the contention that “open air arcing” is inconsistent with Mr. Meeks’ electrocution and (ii) Mr. Chiles’ own findings in his own paper that such arcing is in fact entirely consistent with electrocution, his testimony is necessarily facially self-contradictory, confusing and unreliable. This conclusion is confirmed by looking at the *Daubert* factors:

1. **WHETHER THE THEORY OF TECHNIQUE IN QUESTION CAN AND HAS BEEN TESTED.**

There is no claim made that the purported theory underlying Mr. Chiles’ conclusion that a

³ A copy of this license is attached hereto and incorporated herein as EXHIBIT C.

sound consistent with “open air arcing” is inconsistent with electrocution has ever been tested.

As noted above, Mr. Chiles is a co-author of a paper that reaches the direct opposite conclusion

2. WHETHER IT HAS BEEN SUBJECTED TO PEER REVIEW AND PUBLICATION

The single paper cited in the report was not peer-reviewed. There is no mention of any peer reviewed publication anywhere in the report.

3. ITS KNOWN ERROR OR POTENTIAL RATE OF ERROR

There is no discussion of error or potential error anywhere in the report.

4. THE EXISTENCE OR MAINTENANCE OF STANDARDS

The report is silent with regard to standards or controls used to analyze the sound, but the Sonic Visualizer license specifically disclaims any warranty. As this was the only objective means of analysis claimed to have been used, the report lacks any evidence of any applicable standard.

5. WHETHER IT HAS ATTRACTED WIDESPREAD ACCEPTANCE WITHIN A RELEVANT SCIENTIFIC COMMUNITY

The report makes no reference to any acceptance of the technique of using audio recordings to assess the effectiveness of Taser deployments within any scientific community. As noted above, Mr. Chiles has published a paper that directly contradicts the conclusion he reached that “open air arcing” is inconsistent with electrocution. The question to be addresses is not whether a Taser makes different noises when it arcs and when it does not arc. The proper question, assuming arguendo that the Taser did in fact arc during the deployment of the Taser against Mr. Meeks, is whether such arcing was inconsistent with his electrocution. Mr. Chiles reaches that conclusion without any basis and in a manner which directly contradicts the findings

he published in his own paper.

For all these reasons, the Plaintiff moves this Court to prohibit Mr. Chiles from testifying that the audio recording taken from the body-worn camera worn by Officer Amos when he deployed that Taser against Mr. Meeks supports any conclusion that Mr. Meeks was not electrocuted by the Taser.

III. THE RE-CREATION OF A MISSED SHOT IN THE “LABORATORY” OF AXON ENTERPRISE, INC.

Mr. Chiles conducted a purported “re-creation” of a missed Taser shot in a “laboratory” at the headquarters of Axon Enterprise, Inc. in Arizona. In its response to the Plaintiff’s subpoena duces tecum, Axon concedes that this “laboratory” (which closely resembles a storage room) is neither accredited nor certified.⁴ Axon also provided a video recording of the re-creation.

Mr. Chiles refers in his report to a single Taser shot made during the course of this re-creation and writes that “the pulse graph of the deployment was downloaded and analyzed.” And that the “the pulse graph of the missed deployment in the lab is strikingly similar to the pulse graph of the X26P Energy Weapon deployment toward Mr. Meeks.” The first problem is that Mr. Chiles made four Taser deployments during this re-creation, not one. Of these, according to the video recording,⁵ three of the deployments missed the target and one did not. The report entirely omits the four shots from the methodology of this “re-creation,” not to mention its findings or conclusions. Axon has refused to provide the data related to the missing three shots in response to the subpoena duces tecum. This alone should doom any testimony regarding the re-creation as Rule 26 specifically requires the inclusion of any information “considered” by an expert in his or

⁴ A copy of Axon’s transmittal letter is attached hereto and incorporated herein as EXHIBIT D.

⁵ A copy of this video recording is being mailed on a USB drive to the clerk for filing as EXHIBIT E.

her report.

Another problem arises in the procedure used, as Mr. Chiles mentions during the re-creation that “what I really need is a non-conductive target.” This statement compromises the very integrity of the re-creation and fatally undermines it. Once again, none of the Daubert factors apply to this “re-creation”.

CONCLUSION

WHEREFORE, Mr. Meeks moves this Court to exclude the testimony of Bryan Chiles with regard to (i) his unsupported conclusion that the data downloaded from the Taser Officer Amos deployed against Mr. Meeks supports the contention that Mr. Meeks was not electrocuted by the Taser, (ii) his unsupported conclusion and faulty analysis of audio recordings support any contention that “open air arcing” during the deployment of the Taser against Mr. Meeks is inconsistent with his electrocution by the Taser, and (iii) his re-creation of the missed shot any any conclusions reached by means of this re-creation.

Respectfully submitted,

ELDRIDGE ROOSEVELT MEEKS, III
By Counsel

JAMES RIVER LEGAL ASSOCIATES
7601 Timberlake Road
Lynchburg, Virginia 24502
P (434) 845-4529
F (434) 845-8536

By: /s/ M. Paul Valois
M. Paul Valois, Esquire
Counsel for Plaintiff
Virginia State Bar No. 72326

CERTIFICATE OF SERVICE

I hereby certify that on this 18th day of May, 2021, I electronically filed the foregoing Memorandum with the Clerk of this Court using the CM/ECF system, which will automatically send notice of this filing to:

James A. L. Daniel, Esquire
Martha White Medley, Esquire
Michael A. Nicholas, Esquire
Panagiotis C. Kostopanagiotis, Esquire
DANIEL, MEDLEY & KIRBY, P.C.
P.O. Box 14125
Roanoke, Virginia 24038
P: (540) 983-7600
F: (540) 983-7711
jdaniels@dmklawfirm.com
mmedley@dmklawfirm.com
mnicholas@dmklawfirm.com
pck@dmklawfirm.com

Counsel for Defendants